

Phacelia monoensis Halse**MONO COUNTY PHACELIA****FAMILY:** *Hydrophyllaceae*, the waterleaf family.**SYNONYMS:** *Phacelia lutea* var. *scopulina* (in part)
Miltitzia scopulina (in part)**STATUS:****Heritage Program SENSITIVE LIST, ranks: G3Q S3****USFWS/ESA:** species of concern. **STATE OF NEVADA:** none. **BLM:** Special Status Species in Nevada and California. **USFS:** Humboldt-Toiyabe NF and Inyo NF Sensitive Species. **NNNPS:** THREATENED.**POPULATION CENSUS (NEVADA):** **13 occurrences mapped** at 1.0 km (0.6 mi) separation, **OR 28 occurrences mapped** at 0.16 km (0.1 mi) separation; total estimated **individuals 10,000+**, total estimated **area 21.1+ ha (52.1+ ac)**. **TREND:** unknown.**IMPACTS AND MAJOR THREATS (NEVADA):** Road construction and maintenance, mineral exploration and development. The species is unusual in its rarity and its primary adaptation to disturbance. The largest populations are found in and along roads cut through its habitat, which may have aided historically in dispersal and establishment of new populations. Because of its rarity, though, care must still be taken to avoid disturbances intensive or extensive enough to cause permanent impacts.**INVENTORY EFFORT (NEVADA):** Surveys in Nevada have been locally extensive, but likely remain incomplete. Most recent entered survey 1993, average year of last survey 1986. **Years since last entered survey** (percent of mapped records at various survey ages): **6-10 yrs:** 89.3%; **31-50 yrs:** 3.6%; **51+ yrs or unknown:** 7.1%.**LAND MANAGEMENT (NEVADA)** in decreasing predominance: Humboldt-Toiyabe National Forest, Inyo National Forest, private lands (?), U. S. Bureau of Land Management (?).**RANGE:** Esmeralda, Lyon, and Mineral counties, Nevada; also in CA. Maximum Nevada **range dimension 116.8 km (72.6 mi)** excluding most disjunct record.**ELEVATIONS RECORDED (NEVADA):** 5920-9055 feet (1804-2760 meters).**HABITAT (NEVADA):** Alkaline, barren or sparsely vegetated grayish, brownish, or reddish shrink-swell clays of mostly andesitic origin, on various slopes and aspects, mostly on stabilized or low-intensity artificial or natural disturbances, most abundant on road berms that cross such soils, less frequently on naturally eroding badlands or apparently undisturbed soil, in the pinyon-juniper and mountain sagebrush zones, variously associated with *Monolepis nuttalliana*, *Lappula redowskii*, *Navarretia breweri*, *Mentzelia albicaulis*, *Phacelia gymnoclada*, *Cleomella*, *Allium anceps*, *Phlox longifolia*, *Trifolium andersonii*, *Elymus elymoides*, *Atriplex*, *Artemisia tridentata vaseyana*, *Pinus monophylla*, *Juniperus osteosperma*, *Cercocarpus ledifolius intermontanus*, etc.**PHENOLOGY:** flowering late-spring to summer. Range of most frequent **survey months:** May-June.**LIFE-FORM AND HABIT:** small annual.**DESCRIPTION:** A prostrate annual herb, stems < 6 cm long. Entire plant covered with hairs, including the tiny yellow flowers that bloom May-July.**PHOTOGRAPHS:** Morefield (1994), Weixelman and Atwood (1990); Nevada Natural Heritage Program images web page (1998-present), slide collection (1986-present), and files.**ILLUSTRATIONS:** Cronquist et al. (1984), Weixelman and Atwood (1990).**OTHER GENERAL REFERENCES** (listed separately): Hickman (1993), Spahr et al. (1991).**SPECIFIC REFERENCES:**Halse, R. R. 1980. Taxonomy of *Phacelia* section *Miltitzia* (Hydrophyllaceae). Corvallis: Oregon State University, doctoral dissertation.Halse, R. R. 1981. Taxonomy of *Phacelia* section *Miltitzia* (Hydrophyllaceae). *Madroño* 28: 121-132.Howard, A. 1981. Comments re *Phacelia monoensis* from Alexander and Kellogg field books. Carson City: copy of one typewritten page in Nevada Natural Heritage Program files.McCarten, N. F., M. Fogiel and R. Zebell. 1991. Rare plant survey for *Phacelia monoensis*, *Streptanthus oliganthus* and *draba quadricostata* in the Bridgeport Ranger District of the Toiyabe National Forest. Sparks, Nevada: Toiyabe National Forest.Morefield, J. D. 1994. Current knowledge and conservation status of *Arabis bodiensis* Rollins (Brassicaceae), Bodie Hills rockcress, in Nevada. Carson City: Nevada Natural Heritage Program, status report prepared for the U. S. Fish and Wildlife Service, Reno.Morefield, J. D. 1994. Status report for *Phacelia monoensis* Halse (1981). Carson City: Nevada Natural Heritage Program, prepared for the Inyo National Forest, Bishop, CA.